

## Claims

What is claimed is:

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A1
1. A method of managing logical processors of a computing environment, said method comprising:
    - 3 configuring a logical partition of said computing
    - 4 environment with one or more logical processors; and
    - 5 dynamically adjusting the configuration.
  - 1 2. The method of claim 1, wherein said dynamically
  - 2 adjusting is in response to workload of said logical
  - 3 partition.
  - 1 3. The method of claim 1, wherein said dynamically
  - 2 adjusting comprises increasing a number of logical
  - 3 processors allocated to said logical partition.
  - 1 4. The method of claim 1, wherein said dynamically
  - 2 adjusting comprises decreasing a number of logical
  - 3 processors allocated to said logical partition.
  - 1 5. The method of claim 1, further comprising
  - 2 determining that said configuration is to be adjusted.
  - 1 6. The method of claim 5, wherein said determining is
  - 2 performed at a plurality of time intervals.

1 7. The method of claim 5, wherein said determining  
2 comprises using a predefined equation in making the  
3 determination.

1 8. The method of claim 7, wherein said predefined  
2 equation comprises:

3  $L = \text{floor}[\max(W, U) * P + 1.5]$ , wherein

4  $L$  = number of logical processors configured to said  
5 logical partition;

6  $W$  = percentage of central processor capacity assigned to  
7 said logical partition;

8  $U$  = percentage of central processor capacity currently  
9 being utilized by said logical partition; and

10  $P$  = number of physical processors that can be allocated  
11 on the central processor associated with said logical  
12 partition.

1 9. The method of claim 8, wherein said equation is  
2 subject to a maximum of  $L = P$ .

1 10. The method of claim 7, wherein said determining  
2 further comprises comparing a result of said predefined  
3 equation with one or more thresholds to determine whether  
4 the adjustment is to be made.

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1 11. A system of managing logical processors of a  
2 computing environment, said system comprising:

3 means for configuring a logical partition of said  
4 computing environment with one or more logical  
5 processors; and

6 means for dynamically adjusting the configuration.

1 12. The system of claim 11, wherein said means for  
2 dynamically adjusting is in response to workload of said  
3 logical partition.

1 13. The system of claim 11, wherein said means for  
2 dynamically adjusting comprises means for increasing a  
3 number of logical processors allocated to said logical  
4 partition.

1 14. The system of claim 11, wherein said means for  
2 dynamically adjusting comprises means for decreasing a  
3 number of logical processors allocated to said logical  
4 partition.

1 15. The system of claim 11, further comprising means  
2 for determining that said configuration is to be adjusted.

1 16. The system of claim 15, wherein the determining is  
2 performed at a plurality of time intervals.

1 17. The system of claim 15, wherein said means for  
2 determining comprises means for using a predefined equation  
3 in making the determination.

1 18. The system of claim 17, wherein said predefined  
2 equation comprises:

3  $L = \text{floor}[\max(W, U) * P + 1.5]$ , wherein

4  $L$  = number of logical processors configured to said  
5 logical partition;

6  $W$  = percentage of central processor capacity assigned to  
7 said logical partition;

8  $U$  = percentage of central processor capacity currently  
9 being utilized by said logical partition; and

10  $P$  = number of physical processors that can be allocated  
11 on the central processor associated with said logical  
12 partition.

1 19. The system of claim 18, wherein said equation is  
2 subject to a maximum of  $L = P$ .

1 20. The system of claim 17, wherein said means for  
2 determining further comprises means for comparing a result  
3 of said predefined equation with one or more thresholds to  
4 determine whether the adjustment is to be made.





1 27. The at least one program storage device of claim  
2 26, wherein the determining is performed at a plurality of  
3 time intervals.

1 28. The at least one program storage device of claim  
2 26, wherein said determining comprises using a predefined  
3 equation in making the determination.

1 29. The at least one program storage device of claim  
2 28, wherein said predefined equation comprises:

3  $L = \text{floor}[\max(W, U) * P + 1.5]$ , wherein

4 L=number of logical processors configured to said  
5 logical partition;

6 W=percentage of central processor capacity assigned to  
7 said logical partition;

8 U=percentage of central processor capacity currently  
9 being utilized by said logical partition; and

10 P=number of physical processors that can be allocated  
11 on the central processor associated with said logical  
12 partition.

1 30. The at least one program storage device of claim  
2 29, wherein said equation is subject to a maximum of  $L=P$ .

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